



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/562,721

10/18/2006

Peter Davidson

118989-05157378

8633

20583

7590

06/02/2008

JONES DAY
222 EAST 41ST ST
NEW YORK, NY 10017

EXAMINER

ROGERS, DAVID A

ART UNIT

PAPER NUMBER

2856

MAIL DATE

DELIVERY MODE

06/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,721	Applicant(s) DAVIDSON, PETER	
	Examiner DAVID A. ROGERS	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,10-20 and 22-27 is/are rejected.
- 7) ☒ Claim(s) 3,7-9 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/30/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 112

1. Claims 26 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 26, which depends on claim 25, must include all limitations from the previous claim. Claim 26 cannot both direct the flow of gas in one direction and simultaneously direct the flow in an opposite direction.

Claim Rejections - 35 U.S.C. § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 11 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent 3,287,088 to Seevers.

Seevers discloses a tube (reference item 22) having an upper portion, a middle portion, and a lower portion. The system comprises inlet that is coupled to the upper portion and another inlet at the lower portion. Both inlets are inherently capable of introducing a sample or a gas. The system has two valves (reference item 23 and 25).

With regard to claim 2 the “sample” (reference item 16) inlet opens into the tube above one of the valves (reference item 23).

With regard to claim 11 the tube is in an apparently upright position.

4. Claims 1, 2, 4-6, 12-14, 24, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent 5,479,815 to White *et al.*

White *et al.* discloses a device comprising a tube (reference item 12) having a first end, a middle portion, and a second end. The first end has a first port (reference item 14) and the second end has a second port (reference item 22). A sample supply system will be coupled to the first port. A gas ventilation system (reference item 28) will be coupled to the second port to provide a gas through the tube. With regard to claim 1 White does not teach the use of “closures” at the ports. White *et al.* also teaches that the ports can be provided with valves. See column 6 (lines 48-59).

With regard to claim 2 the inlet for the gas sample would be “above” any valve so that the inlet can be sealed after the sample has been collected.

With regard to claim 4 the inlet for the gas ventilation system would be “above” any valve so that the inlet can be sealed after the sample has been collected and opened to allow the gas from the ventilation system to flow.

With regard to claim 5 the gas from the gas ventilation system will flow in an opposite direction to the flow of the sample.

With regard to claim 6 the gas from the gas ventilation system will inherently change the composition of the sample by the fact the molecules present in the gas will collect with the gas sample thus forming a mixture.

With regard to claims 12-14 the system of White *et al.* is taught as comprising a cabinet (reference item 10) that can be a temperature control device that is capable of influencing the temperature of the tube's wall and the gas flowing through the tube.

With regard to claim 25 White *et al.* teaches the use of a mass spectrometer as a preferred analyzer.

Claim Rejections - 35 U.S.C. § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over White *et al.* as applied to claim 1 above, and further in view of United States Patent 6,354,135 to McGee *et al.*

White *et al.* teaches that it is known to provide a tube for collecting a sample. White *et al.*, however, does not teach a tube having “retention means” at the inner surface of the tube to improve retention of the sample.

McGee *et al.* teaches that it is known to provide "retention means" on the inner surface of a tube for improving the retention of a sample that is drawn through the tube.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of White *et al.* with the teachings of McGee *et al.* in order to provide "retention means" at the inner surface of the tube in order to obtain the predictable benefit of improving sample retention as it flows through the tube.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over White *et al.* as applied to claim 1 above, and further in view of European Patent EP 819937 to Linforth *et al.*

White *et al.* teaches that a sample collection tube is generally surrounded by an oven for heating the tube. White *et al.* does not teach a second tube that surrounds the collection tube for heating the collection tube.

Linforth teaches that it is known to use a second tube (reference item 11) through which a gas flows in order to heat an inner tube (reference item 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of White *et al.* with the teachings of Linforth *et al.* in order to use a second tube to heat the collection tube in order to obtain the predictable benefit of heating the tube.

8. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over White *et al.* as applied to claim 1 above, and further in view of Official Notice.

White *et al.* teaches that both ends of the tube can comprise valves. White *et al.* does not teach an automatic system for operating the valves.

Official notice is hereby taken that automated systems for controlling valve operations are well known. The use of the automated system to operate the valves would have been an obvious expedient to ensuring that the valves operate quickly so that the sample is not contaminated or lost.

With regard to claims 16 and 19 it is obvious to open the valves sequentially; e.g., opening the second valve after the first valve, so that the over pressurization of the tube by the flowing gas is avoided.

With regard to claims 17 and 18 the predetermined amount of sample introduced into the tube will be known; e.g., one breath. The valve for introducing the air will be closed until the gas can be applied. It will open once the gas is ready to flow the sample.

With regard to claim 20 the flowing of the gas can be considered a single gas discharge.

9. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over White *et al.* as applied to claim 1 above, and further in view of United States Patent Application Publication 2005/0065446 to Talton.

White *et al.* teaches that a sample is provided within a tube. Subsequently a gas is used to flow the sample to an adsorbent which will then be desorbed into an analyzer such as a chromatograph or spectrometer. White *et al.* does not teach that the analyzer is connected to the inlet of the tube.

Talton teaches that it is known that a breath sample can be collected and then have its inlet subsequently connected to an analyzer (reference item 103) so that the collected sample can be provided.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of White *et al.* with the teachings of Talton in order to use the tube as the sample collector and then to couple an analyzer to the tube (thus eliminating the need for an adsorbent trap) so that the sample can be directly sent to the analyzer.

Allowable Subject Matter

10. Claims 3, 7-9, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID A. ROGERS whose telephone number is (571)272-2205. The examiner can normally be reached on Monday - Friday (0730 - 1600). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on

Art Unit: 2856

(571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David A. Rogers/
Primary Examiner, Art Unit 2856